NEW

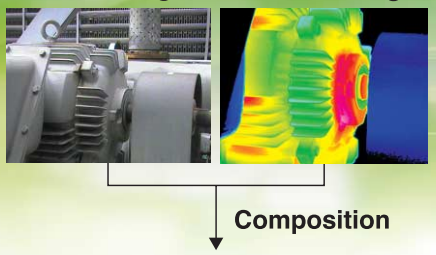
Infrared Thermal Imager

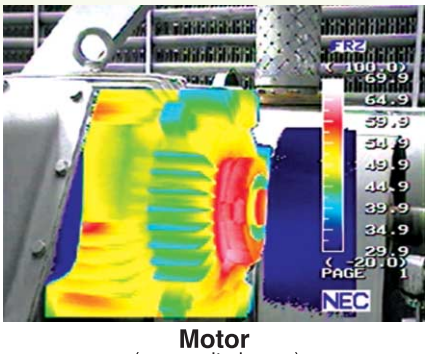
Thermo Tracer

TH9100 Pro

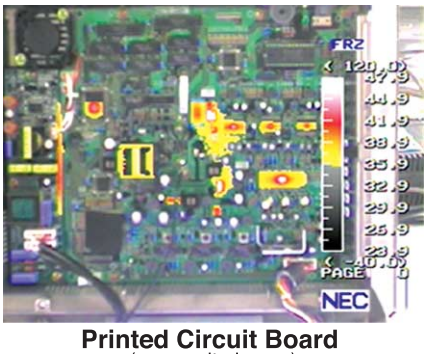
Features Visual and Thermal Image Composite Function!

Easy identification of thermal spots.





Motor
(composite image)



Printed Circuit Board
(composite image)

New Features

Infrared/visual image composition
High grade silver metallic color body
LCD/viewfinder automatically switches on when opened
Easy-to-find shaded point cursor
Simple deletion of thermal image using thumbnail display
File operation available during RUN

Easy Operation

Easy-to-use Joystick Control
Multilingual Menu
(English,French,German,Italian, Japanese,Korean,Portuguese, Russian,Spanish,Simplified chinise, Traditional chinese)
Full-auto Function

High Resolution

0.06℃ at 30℃ 60Hz
0.02℃ at 30℃ Σ64 (TH9100PMV)

Portable

Small/lightweight:1.7kg(including LCD & battery)
Battery Operation Time:approx.150 min *

Robust Body

Dust/splash-proof IP54
Shock-proof 294m/sec²(30G)
Vibration-proof 29.4m/sec²(3G)

Built-in motor drive lens with visual camera:

Record thermal & visual images simultaneously and display the composition image for easy identification of thermal hotspots.

Clear Image

New reflective/transmissive LCD for use in both bright and low light situations

Moving image recordable

Recording Time
Approx. 27 sec (at 60Hz/sec)
Approx. 55 sec (at 30Hz/sec)
Approx. 166 sec (at 10Hz/sec)

* at 20℃ ambient temperature,LCD off,and mesurement is RUN and stand by.

ISO9001 JQA-1598
ISO14001 JQA-EM0260 HEAD OFFICE

NEC San-ei Instruments, Ltd.

Specifications

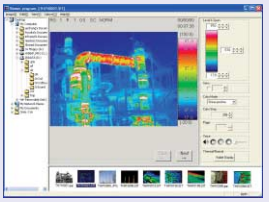
Measuring range		TH9100PMV	TH9100PWV
	Range 1	–20 to 100°C	–40 to 120°C
	Range 2	0 to 250°C	0 to 500°C
	Range 3 (option)	100 to 800°C	200 to 2000°C
	Range 4 (option)	200 to 2000°C	—
Resolution	Range 1	0.06°C (at 30°C 60Hz) 0.02°C (at 30°CΣ64)	0.08°C (at 30°C 60Hz) 0.03°C (at 30°CΣ64)
Accuracy	±2°C or ±2% of reading whichever greater		
Detector	Uncooled focal plane array (microbolometer)		
Spectral range	8 to 14μm		
I.F.O.V.	1.2mrad		
Focusing range	30cm to infinity		
Field of view	21.7°(H) x 16.4°(V)		
Frame time	60 frames/sec		
Display	View finder and 3.5 inch LCD monitor with auto switch		
Thermal image pixels	320 (H) x 240 (V) pixels		
A/D resolution	14 bits		
Measuring functions	Run/Freeze		
S/N improvement	Σ2, Σ8, Σ16, Σ32, Σ64 and spatial filter ON/OFF		
Alarm	Screen display and alarm sound (ON/OFF)		
Interval measurement	Recording on built in real time memory : 1/60 to 3600 sec interval Recording on memory card : 5 to 3600 sec interval (thermal image) 30 to 3600 sec. (thermal & visual image) Trigger function provided		
Emissivity correction	0.10 to 1.00 (at 0.01 step), Emissivity table provided		
Env. temp. correction	Provided (including interval NUC)		
User setup	Pre-registration of environmental setup (max. 10 setups)		
Background comp.	Provided		
Auto functions	Full automatic (level, sense, focus) Level trace, auto-gain control		
Display functions	Thermal/visual composite image display Display color : color/monochrome, positive/negative Gradation : 16, 32, 64, 128, 256 Color pallette : rainbow, brightness, shine, hot-iron, medical, fine Isothermal band display : max. 4 bands Thumbnail display : 12 thermal images replay Multi-sense display, Battery life indicator Line-profile : X, Y line profile (waveform display) Multilingual menu		
Image processing functions	Variable level/sense Multi-point temperature display (10pts) Multi-point emissivity display (10pts) Δt display Max/Min (peak hold) temperature display Alarm (full screen or specified box) Digital zoom : 2, 4 times (Run/Freeze) Box setting (max. 5 boxes)		
Annotation	Text and voice annotation (30 sec per image)		
Storage device	Compact flash memory card for; Thermal image in SIT or BMP file format Visual image in SIT or JPEG file format Thermal/visual composite image in BMP file format		
Movie recording	Real-time memory : 1664 images (max. 60Hz)		
Video signal output	NTSC/PAL composite video signal, S-video		
Interface	IEEE1394, RS-232C		
Operating temp/humidity	–15 to 50°C, 90% RH or less (not condensed)		
Storage temp./humidity	–40 to 70°C, 90% RH or less (not condensed)		
Power supply	AC adaptor : 100V to 240V, DC 7.2V (nominal)		
Power consumption	Approx. 6W (typ)		
Shock and vibration	294m/sec² (IEC60068-2-27), 29.4m/sec² (IEC60068-2-6)		
Environmental protection	IP54 (IEC60529)		
Dimensions	Approx.108 (W) x 113 (H) x 189 (D) mm (excluding projection)		
Weight	Approx. 1.4kg (excluding LCD & battery) Approx. 1.7kg (including LCD & battery)		
Standard accessories	AC adaptor, battery pack (2pcs), battery charger, compact flash memory card, grip belt, neck strap, lens cap, carrying case, viewer software, operation manual		

Specifications are subject to change without prior notice.

Visual Camera

Pixels	0.41Mega pixels
Effective image pixels	752 (H) x 480 (V) pixels
Field of view	30.1° (H) x 22.7° (V)
Sensitivity	1 lux
Focusing distance	30cm to infinity
Auto exposure	Provided
Video signal	NTSC/PAL

Viewer Software



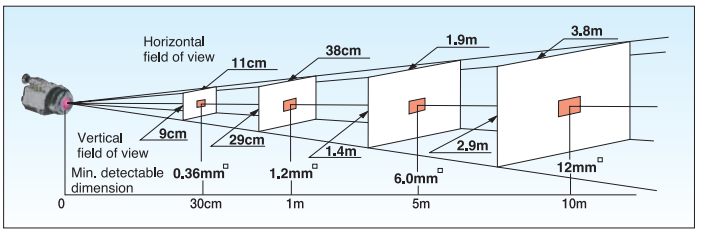
- Thermal image display :
  - Thermal image thumbnail (Windows Explorer)
  - Thermal image replay
  - Image preview
- Setup & Functions :
  Level, Sense, Span, Voice replay,
  Selection of thermal or visual image,
  Color bars, Gradation, Page
- Edit :
  Image save (BMP or JPEG)
  Select folder

Options

TH91-390	High temperature range for TH9100PMV *1 R3: 100 to 800°C, R4: 200 to 2000°C
TH91-392	High temperature range for TH9100PWV *1 R3: 200 to 2000°C
TH91-313	USB Interface with TH91-737 remote program *1
TH91-382	Telephoto lens (x2) 10.9°(H) x 8.2°(V) with visual camera
TH91-383	Wide angle lens 42.0°(H) x 32.1°(V) with visual camera
TH91-386	Close-up lens, 95μm, 30mm(H) x 22mm(V) W.D. 75mm
TH91-385	Close-up lens, 37μm, 11mm(H) x 8mm(V) W.D. 13mm
TH91-387	External lens adaptor for TH71-344A wide angle lens, TH71-377/378 close up lenses
TH71-464	Rechargeable battery pack (Li-ion) 7.2V 1800mAh
TH71-340	Battery charger for 100/110V (2 battery slots)
TH71-339	Battery charger for 220/240V (2 battery slots)
TH71-334	AC adaptor (100/110V AC)
TH71-360	AC adaptor (110V AC) UL
TH71-359	AC adaptor (220/240V AC) CE
TH91-375	Remote controller
TH91-398-L05	5m cable for remote controller TH91-375
TH71-347	LCD remote controller (TH91-347-L connecting cable is required)
TH91-347-L05	5m cable for LCD remote controller TH71-347
TH91-347-L10	10m cable for LCD remote controller TH71-347
TH91-347-L15	15m cable for LCD remote controller TH71-347
TH91-347-L20	20m cable for LCD remote controller TH71-347
TH91-349	RS232C Cable
TH91-348	S-video cable
TH91-713	Report Generator Software *2
TH91-711	Image Processor Software (TH91-713 is required) *2
TH91-712	Image Processor Pro Software *2
TH71-717	IEEE1394 Data Capture Software *2
MikroSpec	Thermal Imaging Software *2
MikroSpec R/T	Real-Time Thermal Data Acquisition & Analysis Software *2
irMotion	Recorder, Trigger and Measurement Software *2
Trigger Box	Trigger box for irMotion

*1 Specify these options when ordering the main unit (TH9100PMV/PWV)
*2 Compatible with the Microsoft Windows 2000 professional, Windows XP

Field of View Diagram (Thermal image)



CAUTION FOR SAFETY

Please read "WARNING" & "CAUTION" in the operation manual attached to the product carefully for proper operation before using the product.

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